

REMARKS

The Office Action mailed January 8, 2009 has been reviewed and carefully considered. No new matter has been added.

Claim 1 has been amended. New Claim 32 has been added. Claims 1-2, 4, 11-14, 16-18, and 21-32 are pending.

Claims 1 and 16 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserted that specification does not contain subject matter describing the limitation “comparing ... a particular one compatibility parameter of said ALG file with both a compatibility feature of said bi-directional communication device and a non-signature, non-code-error checking feature expected in received and authentic ALG files” recited in Claims 1 and 16. The Applicants respectfully disagree.

Per the limitation of Claims 1 and 16, the same particular one compatibility parameter is compared to both a compatibility feature of said bi-directional communications device and a non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device.

Initially, the Applicants respectfully re-iterate the following portion of MPEP §2163: “While there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure.”

Support for the preceding limitation of Claims 1 and 16 identified by the Examiner may be found at least at page 10, lines 1-19 of the Applicants’ specification. In particular, page 10, lines 1-19 of the Applicants’ specification disclose the following (emphasis added):

The ALG header 210 comprises header data fields such as header format version 216, **header size 218**, expected header CRC 220, payload authentication signature 222, **payload size 224**, expected payload CRC 226, compatible hardware and software version families 228 and 230, and other header data 212 such as compression parameters, copyright notices, and/or the date/time the payload was created, among other information. **In one embodiment of the invention, many of these ALG header 210 components may be utilized as ALG file validity fields 214**, which are used by the cable modem 130 to determine whether an upgraded or

new ALG file 200 received by the cable modem 130 has been corrupted during file transfer, as well as compatible with the cable modem hardware and software.

Thus, with respect to comparing the particular one compatibility parameter of said ALG file, at least the following approaches are at least one of expressly, implicitly, or inherently disclosed in the Applicants' specification. As an example, the particular one compatibility parameter of said ALG file may be considered to be the header size or body size of the ALG file. In such a case, the header or body size field of said ALG file is compared with the available memory size (where the available memory size is a compatibility feature of said bi-directional communications device) and also the header or body size field of said ALG file is compared with the feature of a received and authentic ALG file having a header or body size field(s) (and/or values therein) **IN THE FIRST PLACE** (as a header size field and body size field (and associated values) are expected in received and authentic ALG files, and their very absence is a likely indication of packet corruption).

Thus, with respect to the first comparison described above (between the particular one compatibility parameter of said ALG file and a compatibility feature of said bi-directional communications device), the header and/or body size field may be compared directly to the compatibility feature of said bi-directional communications device (e.g., an amount of available memory in said bidirectional communications device), since if either one does not fit in available memory, then certainly the entire ALG file will not fit in available memory.

With respect to the second comparison described above (between the particular one compatibility parameter of said ALG file and the non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device), the header or body size field may, in **ONE IMPLEMENTATION**, be compared to the non-signature, non-code-error checking feature of an ALG file having such a field(s) (or value(s) for that field(s)) in the first place as would be expected in received and authentic ALG files by said bi-directional communications device (since, as noted above, an absence of such a field(s) is a strong indicator of data corruption). Further, in **ANOTHER IMPLEMENTATION**, the header or body size field may be compared to the non-signature, non-code-error checking feature of an ALG file having a header or body size field with a particular value or within a range of values to determine whether the specified size, for example, exceeds size thresholds for expected ALG files that are received by said

bi-directional communications device and that are authentic. As an example, a larger sized body may indicate the presence of a virus such as a Trojan horse. The above implementations are clearly disclosed, either expressly, implicitly, or inherently as required under MPEP §2163. This would seem particularly so in view of the Examiner's statement relating to the state of the art at the time of Applicants' invention, as set forth on page 5 of the Office Action dated January 8, 2009, where the Examiner stated (NO emphasis added by Applicants):

Smith discloses of a method and system for providing protection from exploits to devices connected to a network by comparing the received file with a non-signature, non-code-error checking feature expected in received and authentic files [Para. 0065 and 0066; the size of the header or body of the file is examined to determine if they are longer than they should be]. It would have been obvious to one skilled in the art at the time of the invention to verify the header or body length of a particular message to ensure that there is no executable code within the overflow buffers allotted for portions or all of a header or body of a file [Para. 0026]. This allows the system to prevent improper access to data or unauthorized programs executed on the host computer [Para. 0026].

Given the Examiner's preceding statement from page 5 of the pending Office Action relating to Smith, coupled at least with the Applicants' disclosure and the following text from MPEP 2163, it would seem that the Examiner would agree with the Applicants' arguments as set forth above regarding the limitation in issue being supported by the Applicants' disclosure in compliance with 35 U.S.C. 112, first paragraph:

Generally, there is an inverse correlation between the level of skill and knowledge in the art and the specificity of disclosure necessary to satisfy the written description requirement. Information which is well known in the art need not be described in detail in the specification. See, e.g., *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379-80, 231 USPQ 81, 90 (Fed. Cir. 1986).

Moreover, with respect to Claim 1 and the Examiner's assertion regarding lack of antecedent basis, the following amendment has been made to Claim 1: "storing said ALG file at said bi-directional communications device in response to a favorable comparison of said particular one compatibility parameter of said ALG file".

Hence, in view of the preceding, it is respectfully asserted that Claims 1 and 16 satisfy 35 U.S.C. 112, first paragraph. Reconsideration of the rejection is respectfully requested.

Claims 1, 2, 4, 11, 12, 14, 16-18, and 21-31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,986,133 to Michael D. O'Brien et al. (hereinafter "O'Brien") in view of U.S. Patent Application No. 2002/0152399 to Gregory J. Smith (hereinafter "Smith"). Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien in view of Smith, and further in view of U.S. Patent No. 6,031,830 to Paul A. Cowen (hereinafter "Cowen"). The rejections are respectfully traversed.

It is to be noted that Claims 1 and 16 are the pending independent claims in the case.

It is respectfully asserted none of the cited references, either taken singly or in combination, teach or suggest the step of/means for "comparing, at the bi-directional communications device, a particular one compatibility parameter of said ALG file with both a compatibility feature of said bi-directional communications device and a non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device", as recited in Claims 1 and 16.

It is to be further noted that Claims 1 and 16 require by their respective explicit limitations that the particular one compatibility parameter of said ALG file (hereinafter interchangeably referred to as "item 1" for the sake of illustration) is compared with **both** a compatibility feature of said bi-directional communications device (hereinafter interchangeably referred to as "item 2" for the sake of illustration) and a non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device (hereinafter interchangeably referred to as "item 3" for the sake of illustration). Thus, per Claims 1 and 16, item 1 is compared with both item 2 and item 3. That is, the same item 1 is compared to both item 2 and item 3.

In contrast, in setting forth the rejection, the Examiner has also set forth the following reasoning, with respect to items 1 and 2 above: “upgrade policy defining which IP addresses or hostname of the server will provide updates and the ‘serverName’ component parameter specifying the IP address or host name of the server the agent will inquire about the update” (Office Action, p. 4). Hence, the Examiner seems to be equating the upgrade policy (by hostname) disclosed in O’Brien with recited item 1 (i.e., “particular one compatibility parameter of said ALG file”) and the serverName disclosed in O’Brien with recited item 2 (i.e., “compatibility feature of said bi-directional communications device”).

Initially, it is respectfully pointed out that if the rollout of the upgrade policy is being controlled by hostname, then the upgrade policy applies to the host (to select the host that is to be used for the rollout) and not to a particular compatibility parameter of said ALG file. For example, the Examiner cited no disclosure in O’Brien where the rollout policy is applied to an ALG file. Moreover, just because a value (e.g., servername) exists does not mean it has to be compared to anything. For example, the value may simply be used. As an example, for an upgrade, a particular server may be desired for use without any comparison being necessary. Hence, neither the upgrade policy, the rollout of which is controlled by hostname, or the hostname itself, correspond to the particular compatibility parameter of said ALG file recited in Claims 1 and 16.

Moreover, in continuation of his reasoning for rejecting Claims 1 and 16, the Examiner has pointed to Smith, stating the following at page 5 of the Office Action:

Smith discloses of a method and system for providing protection from exploits to devices connected to a network by comparing the received file with Q non-signature, non-code-error checking feature expected in received and authentic files [Para. 0065 and 0066; the size of the header or body of the file is examined to determine if they are longer than they should be]. It would have been obvious to one skilled in the art at the time of the invention to verify the header or body length of a particular message to ensure that there is no executable code within the overflow buffers allotted for portions or all of a header or body of a file [Para. 0026]. This allows the system to prevent improper access to data or unauthorized programs executed on the host computer [Para. 0026].

Thus, by the Examiner's rejection, the Examiner has initially correlated the rollout of the upgrade policy (by hostname) to item 1 (i.e., "particular one compatibility parameter of said ALG file") and the server name to item 2 (i.e., "compatibility feature of said bi-directional communications device"), while then equating the header or body length of a particular message to item 3 (i.e., "non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device"). Hence, the Examiner cannot be comparing the same item 1 (per O'Brien) to both item 2 (per O'Brien) and item 3 (per Smith), as do Claims 1 and 16. For one thing, clearly the comparison of the servername/hostname to the header or body length, where the header or body length is examined to determine whether they are longer than they should be, serves no purpose. That is, if one is examining a header or body length to determine whether they are longer than they should be, then comparing the header or body length to a server name has no utility. Hence, not only does the Examiner's assertion (i.e., comparing the server name to the length of the header or body) lack support (there is no disclosure in any of the cited references that compares the servername/hostname to a header or body length) in the cited references, but such assertion seem illogical and hence, highly improbable.

Moreover, returning to O'Brien, O'Brien simply discloses the **comparing** of a digital signature, and no more. For example, as explicitly disclosed at column 4, lines 56-64:

The agent is a small piece of software that runs continuously on a device. Its main function is to poll the server for upgrade information and, if an upgrade is available, to fetch and apply it to the device. It must also do this securely by ensuring that the upgrade has come from an authorized the [sic] server and that the contents have not been tampered with during transmission. **The agent accomplishes this by authenticating and verifying the upgrade via the digital signature that is included in an upgrade module.**

Moreover, as further disclosed at column 5, lines 25-34 of O'Brien:

To publish an upgrade, administrators specify the files that constitute the actual upgrade (the upgrade payload), as well as configuration and policy information. Upgrade policies enable system administrators to control upgrade rollouts by specifying which target devices will or will not receive a specific upgrade. The payload is then combined with this information and a digital signature to produce an upgrade module. The digital signature is used by the agent to authenticate the server and to verify the integrity of the upgrade data.

Hence, there is not disclosure in O'Brien of comparing a single item (namely, "a particular one compatibility parameter of said ALG file") to two other items (namely "a compatibility feature of said bi-directional communications device" and "a non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device"), as recited in Claim 1. O'Brien is simply comparing the digital signature. The servername/hostname disclosed in O'Brien merely represents what server is going to be used to rollout the upgrade. Moreover, Smith does not cure the deficiencies of O'Brien and also does not disclose comparing a single item to two other items, as recited in Claim 1.

Hence, none of the cited references, either taken singly or in any combination, teach or suggest all the above recited limitations of Claims 1 and 16.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art" (MPEP §2143.03, citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious" (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

Claims 2, 4, 9, 11-14, and 21 directly or indirectly depend from Claim 1 and, thus, includes all the elements of Claim 1. Claims 17-18 directly or indirectly depend from Claim 16 and, thus, includes all the elements of Claim 16. Accordingly, Claims 2, 4, 9, 11-14, and 21 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to independent Claim 1, and Claims 17-18 are patentably distinct and non-obvious over the cited references for at least the reasons set forth above with respect to independent Claim 16.

Moreover, said dependent claims include patentable subject matter in and of themselves and are, thus, patentable distinct and non-obvious over the cited references in their own right. For example, it is respectfully asserted that none of the cited references, either taken singly or in any PROPER combination, teach or suggest “wherein said bi-directional communications device comprises a cable modem”, as recited in Claims 11 and 18.

For example, it is respectfully pointed out that the Examiner is equating server with bi-directional communication device for Claims 1 and 16, while previously equating a modem with the bi-directional communication device for Claims 11 and 18. Hence, the Examiner’s position has been inconsistent and unfair, and the rejection of Claims 11 and 18 is deficient using such reasoning. For example, Claim 11 depends from Claim 1 and Claim 18 depends from Claim 16. Thus, the same device is recited in Claim 1 as that recited in Claim 11, and the same device recited in Claim 18 is as that recited in Claim 16, contrary to the Examiner’s inconsistent approach.

While the Examiner has now admitted (on page 6 of the Office Action dated January 8, 2009) that neither O’Brien or Smith specifically disclose that the bi-directional communication device is a cable modem, the Examiner has nonetheless erroneously attempted to cure his past reasoning by stating that the Applicant has failed to seasonably challenge the Examiner’s assertion of well known subject matter in the previous Office Action with respect to cable modem. The Applicants did, in fact, traverse the Examiner’s position regarding the modem in the previous Office Action on pages 11-12 of the previous response, arguing that the Examiner’s was inconsistent and unfair in that the Examiner was equating two different elements, namely a server and a modem, to the bidirectional communication device recited in the claims. The Examiner is respectfully requested to review the record.

For example, and as previously set forth in the preceding response, it is to be noted that while each of Claims 1 and 16 recite that the “comparing” is performed at the bi-directional communications device, in contrast O’Brien discloses the serverName parameter is sent from the agent to the server in order to inquire about and fetch upgrades and, hence, any comparison of the serverName is performed by the server and not the actual device to be upgraded (i.e., the bidirectional communications device) (see, e.g., O’Brien, col. 12, lines 48-54). Hence, if the modem of Smith is relied upon (as the Examiner did one pages 4-5 in the Office Action), then

clearly the Examiner's entire use of servername/hostname as per Claims 1 and 16 is misplaced, for at least the preceding reasons set forth above.

Hence, should the Examiner select either the server disclosed in O'Brien OR the modem disclosed in Smith as corresponding to the bi-directional communications device recited in Claims 1 and 16, then clearly the limitations of Claim 1 and 11 (or Claims 16 and 18) cannot both be shown in the cited references in any proper combination. Hence, none of the cited references, either taken singly or in any PROPER combination, teach or suggest the above recited limitations of Claims 11 and 18.

Further, it is respectfully asserted that none of the cited references, either taken singly or in any combination, teach or suggest "wherein a value of the particular one compatibility parameter of said ALG file is added to a value of another particular one compatibility parameter of said ALG file as a sum that is compared to a value of the compatibility feature of said bi-directional communications device", as recited in Claims 24 and 30. For example, the Examiner has cited column 7, lines 15-18 of O'Brien, while providing the following reasoning on page 7 of the Office Action dated January 8, 2009: "the upgrade agent performs a comparison for each chunk of the upgrade with the appropriate checksum to determine if the file is corrupt". First, the Examiner's use of these references is completely INCONSISTENT and quite unfair in that the Examiner's is equating a plurality of different elements to the same element that is recited in multiple claims. For example, with respect to Claim 1, the Examiner equated the upgrade policy (by hostname) disclosed in O'Brien with recited item 1 (i.e., "particular one compatibility parameter of said ALG file"), the serverName disclosed in O'Brien with recited item 2 (i.e., "compatibility feature of said bi-directional communications device", and the header or body length of a particular message disclosed in Smith to recited item 3 (i.e., "non-signature, non-code-error checking feature expected in received and authentic ALG files by said bi-directional communications device"). However, in rejecting Claims 24 and 30 on page 7 of the Office Action dated January 8, 2009, the cited reasoning of the "upgrade agent performs a comparison for each chunk of the upgrade with the appropriate checksum to determine if the file is corrupt" relates to none of the previously correlated items, namely the upgrade policy (by hostname) disclosed in O'Brien, the serverName disclosed in O'Brien, and the header or body length of a particular message disclosed in Smith. Moreover, Claims 24 and 30 recite that a value of the particular one compatibility parameter of said ALG file is

added to a value of another particular one compatibility parameter of said ALG file as a sum that is compared to a value of the compatibility feature of said bi-directional communications device. Since each chunk is compared to an appropriate checksum FOR THAT chunk, no adding of particular compatibility parameters is performed to obtain a sum that is compared to a value of the compatibility feature of said bi-directional communications device. For example, in the Examiner's reasoning, the Examiner has provided no correlation to the compatibility feature of said bi-directional communications device. Hence, none of the cited references, either taken singly or in any combination, teach or suggest the above recited limitations of Claims 24 and 30.

Accordingly, reconsideration of the rejections is respectfully requested.

Further, as noted above, new Claim 32 has been added. Support for Claim 32 may be found at least at page 10, lines 10-19 and page 13, lines 4-7 of the Applicants' specification. It is respectfully asserted that none of the cited references teach or suggest the above recited limitations of Claim 32:

wherein the particular one compatibility parameter is both capable of being directly compared and indirectly compared to the compatibility feature of said bi-directional communications device, wherein an indirect comparison involves the particular one compatibility parameter being included in a sum, and wherein the sum is capable of being directly compared to the compatibility feature of said bi-directional communications device

That is, according to the limitations of Claim 32, the ALG header of body size (as representing the particular one compatibility parameter of said ALG file) may be directly compared to the compatibility feature of said bi-directional communications device (available memory size), or the header and body size may be combined as a sum that is directly compared to the compatibility feature of said bi-directional communications device (available memory size). It should be realized by one of ordinary skill in this and related arts that the latter comparison involves an indirect comparison of one of the values that make up the same.

In view of the foregoing, Applicants respectfully request that the rejection of the claims set forth in the Office Action of January 8, 2009 be withdrawn, that pending Claims 1-2, 4, 11-14, 16-

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18, and 21-32 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

The Office is authorized to charge applicants' Deposit Account No.07-0832 to cover the fees for the addition of one (1) dependent claim in excess of twenty.

It is believed that no further additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicants' Deposit Account No.07-0832.

Respectfully submitted,
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